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(54) Title: **METHODS AND COMPOSITIONS TO ENHANCE ENDOGENOUS IGF PRODUCTION AND THEIR USES**

(57) Abstract: An extract and procedure for extracting the polar constituents from plants of the Family Brassicaceae, specifically but not limited to the genus *Lepidium*. The extract has increased polar and decreased lipidic constituent concentrations with the ability to promote the expression and production of insulin-like growth factor. The extract makes the product more amenable to use in preparations for use in conditions that are associated with reduced insulin-like growth factor levels in humans and animals, including growth, muscle mass, strength and repair, arthritis, bone formation and osteoporosis, dysmobility in the elderly, improved liver and gastrointestinal function, cachexia, fertility, fetal and neonatal growth restriction, aquaculture and animal farming.

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